

DAVISVILLE NAVAL CONSTRUCTION BATTALION CENTER

DAVISVILLE, RHODE ISLAND

Engineering Field Division/Activity:	NORTHDIV
Major Claimant:	COMNAVFACENGCOM
Size:	1,294 Acres
Funding to Date:	\$25,931,000
Estimated Funding to Complete:	\$21,071,000
Base Mission:	Provided mobilization support to Naval Construction Forces
Contaminants:	Heavy metals (lead), PCBs, pesticides (dichlorodiphenyl trichloroethane), POLs, volatile organic compounds



Number of Sites:		Relative Risk Ranking of Sites:			
CERCLA:	16	High:	8	Not Evaluated:	0
RCRA Corrective Action:	0	Medium:	8	Response Complete:	5
RCRA UST:	8	Low:	3	Total Sites:	24
Total Sites:	24				



EXECUTIVE SUMMARY

The Davisville Naval Construction Battalion Center (NCBC) is 18 miles south of Providence in North Kingstown, Washington County, Rhode Island. It was a military installation from World War II until its operational closure in 1994. The area is now primarily residential. Operations that contributed to contamination include shops such as carpentry, painting, plumbing, power plant maintenance, vehicle maintenance, pier operations, equipment maintenance and ordnance operations. Site types of concern include landfills, storage and disposal areas, transformer storage areas, spill areas, Underground Storage Tanks (USTs) and fire fighting training areas.

NCBC was placed on the National Priorities List (NPL) because Site 9 (Allen Harbor Landfill) and Site 7 (Calf Pasture Disposal Area), threaten Allen Harbor and Narragansett Bay. Both sites were used for the disposal of solid and liquid wastes without any method of containment other than burial. The proximity of Site 9 to Allen Harbor makes the landfill a potential source for the heavy metal contamination detected in the shoreline and sediments. The waters off Site 7 provide an important shellfish resource in Narragansett Bay. A Federal Facility Agreement (FFA) was signed by EPA Region I, the State of Rhode Island and the Navy in 1992.

NCBC consisted of three geographic areas. The Main Center, which includes Sites 7 and 9, is located on Narragansett Bay. The West Davisville Storage Area is located three miles west of the Main Center. Camp Fogarty, a former training center, is located four miles west of the Main Center. Municipal water supply wells for the town of North Kingstown are located within a three mile radius of NCBC.

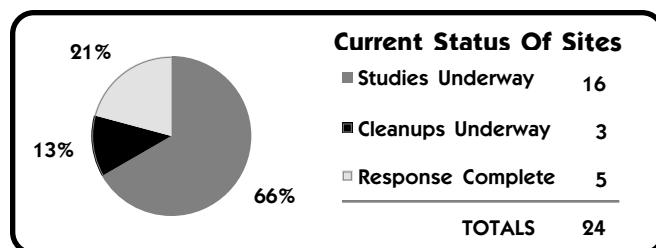
The Community Relations Plan (CRP) was completed in May 1989. An Administrative Record was established in 1989 and an Information Repository is located at a local library. A Technical Review Committee (TRC), established in April 1988, was converted to a Restoration Advisory Board (RAB) in December 1993. The RAB has 21 members who meet bi-monthly.

At the end of FY95, ten of the 16 CERCLA sites at NCBC were in the Study Phase, three were in the Cleanup Phase and two were Response Complete (RC). Five of the eight UST sites were in the Study Phase and three were RC. Remedial Investigations (RI) were completed at Sites 3, 7, 9 and Study Area 1. In FY95, a Corrective Action Plan (CAP) was prepared for seven of the 56 tanks that were removed in FY92 from USTs 1-7. Investigations are underway to prepare a CAP for seven of the 27 tanks that were removed in FY95. Also in FY95, the Remedial Action (RA) for removal of material contaminated with the chemical additive PCB at Site 14 was completed. A Record of Decision (ROD) for No Further Action (NFA) at Sites 5 and 8 was signed and a non-time critical removal action at Study Area 4 was initiated.

All field investigations will be complete in FY96. Feasibility Studies (FSs) are underway for Sites 6, 9, 10, 11 and 13. A basewide groundwater study will also be completed. An FS for Site 7 will begin after completion of the RI. Removal of underground tanks and piping will be completed at Site 2, along with cleaning of the battery room. Asphalt material will be removed from Site 4. Also in FY96, Proposed Remedial Action Plans (PRAPs) and RODs for Sites 6, 9, 10, 11 and 13 will be prepared. RAs at Sites 2, 12, 13 and Study Area 4 will be completed.

In July 1991, the Base Realignment and Closure (BRAC II) Commission recommended closure of Davisville NCBC. Construction battalion activities were transferred to NCBC Gulfport, Mississippi and NCBC Port Hueneme, California in April 1994. Camp Fogarty (347 acres) was transferred to the Army in December 1993. It is currently assigned to the Rhode Island National Guard. Portions of West Davisville (70 acres) were leased to Rhode Island Port Authority in November 1993 and 21 buildings will be leased in January 1996.

The BRAC Cleanup Team (BCT), formed in FY94, has helped resolve issues related to the Ecological Risk Assessment and Remedial Investigation/Feasibility Study (RI/FS) reports. The BCT also renegotiated a new FFA schedule. A BRAC Cleanup Plan (BCP) was updated in February 1995. The reuse plan was completed in January 1994. Future uses will be primarily industrial and some recreational. In FY96, Phase II of the Environmental Baseline Survey (EBS) to characterize all parcels will be completed. Fast Track Initiatives have expedited cleanups. Removal actions at four sites were completed in advance of the PRAP and the ROD. Overlapping phases when sufficient information is available to safely begin the next phase has saved time. Final draft FS preparation and review periods were shortened by including revised text on draft comments.



DAVISVILLE NCBC RELEVANT ISSUES

ENVIRONMENTAL RISK



HYDROGEOLOGY - Two sites at NCBC Davisville are within 1,000 feet of one another. Site 9 (Allen Harbor Landfill) is located adjacent to Allen Harbor and Site 7 (Calf Pasture Point Disposal Area). Both sites threaten Allen Harbor and Narragansett Bay. Municipal supply wells for the town of North Kingstown, which serves approximately 27,000 persons, are located within three miles of hazardous substances on the sites. Groundwater is shallow (2-4 feet) in some areas and soils permeable, conditions that facilitate movement of contaminants into groundwater. Both Allen Harbor Landfill and Calf Pasture Point Disposal Area were used for the disposal of a variety of solid and liquid wastes without any method of containment other than burial. The proximity of Site 9 to the surface water of Allen Harbor makes the landfill a potential source for the heavy metal contamination detected in the shoreline and sediments of Allen Harbor. In addition, the waters off Site 7 provide an important shellfish resource in Narragansett Bay. The chief chemicals of concern are lead, mercury, carbon tetrachloride and the chemical additive PCB.



NATURAL RESOURCES - Allen Harbor is a small inlet from Narragansett Bay. The harbor was closed to shellfishing in 1984 by the Rhode Island Department of Environmental Management (RIDEM). The waters off Calf Pasture Point provide an important shellfish resource. Both saltwater and fresh water wetlands are located on NCBC. No rare, threatened, or endangered species have been observed on the center, but some are occasionally seen in the area. There is a nesting colony of Common Terns on the east side of the Quonset Point NAS airfield.

NCBC has two historical sites eligible for the National Register of Historic Places that include warehouses and residential headquarters.



RISK - In FY94, an Ecological Risk Assessment was done in conjunction with an on-going Remedial Investigation/Feasibility Study (RI/FS) under EPA guidelines. Eight of the 24 sites at NCBC received a high ranking under the DOD Relative Risk Ranking System. All high rankings were attributed to either soil or groundwater contamination. Contaminants include petroleum products, volatile organic compounds, the chemical additive PCBs and solvents. Potential receptors are human and ecological. Remedial Action (RA) will soon be underway at Site 9. Sites 6, 10 and 11 are No Further Action (NFA) sites. Site 4 will undergo asphalt removal in FY96. The Agency for Toxic Substances and Disease Registry (ATSDR) completed a Public Health Assessment in October 1995. Concern was expressed about shellfish taken from near shore areas surrounding the landfill.

REGULATORY ISSUES



NATIONAL PRIORITIES LIST - In November 1989, NCBC Davisville was added to the National Priorities List (NPL) with a Hazard Ranking System (HRS) score of 34.52. RAs are being conducted under CERCLA while compliance actions are governed by Federal and Rhode Island state laws.



LEGAL AGREEMENTS - A Federal Facility Agreement (FFA) was signed in March 1992 by the EPA Region I, the State of Rhode Island and the Navy. The Base Realignment and Closure (BRAC) Cleanup Plan (BCP) will be used in lieu of a Site Management Plan (SMP).



PARTNERING - The University of Rhode Island received a grant of \$1.3 million from DOD to establish an environmental education and training facility at NCBC. The intent of the training facility is to educate students and train former defense workers in environmental cleanup. Increased communication with EPA and the State of Rhode Island Department of Environmental Management (RIDEM) has improved the decision making process. The facility will be located in buildings recently leased to Rhode Island Economic Development Corporation.

COMMUNITY INVOLVEMENT



RESTORATION ADVISORY BOARD - A Technical Review Committee (TRC) was established in April 1988 and converted to a Restoration Advisory Board (RAB) in December 1993. The RAB has 21 members who meet bi-monthly or as necessary. Meeting agenda items are addressed in an open discussion format. In addition, community members of the RAB will be receiving Technical Assistance Grants (TAGs) through EPA to provide continued support to the RAB. Represented on the RAB are the Rhode Island Port Authority (RIPA), City of North Kingstown, Narragansett Indian Tribe, US Fish and Wildlife Service, US Public Health Service, Narragansett Bay Project and the Rhode Island Resource, Conservation and Development Area.



COMMUNITY RELATIONS PLAN - The Community Relations Plan (CRP) was completed in May 1989. An update CRP will be issued in March 1996.



INFORMATION REPOSITORY - An Administrative Record was established in 1989 and an Information Repository was set up in a local library in May 1989. Copies of Administrative Record documents are maintained in the Information Repository for public access.

BASE REALIGNMENT AND CLOSURE



BRAC - In July 1991, the Base Realignment And Closure (BRAC) Commission recommended closure of NCBC. The official closure date was April 1994. Construction battalion training and mobilization activities were transferred to Naval Construction Battalion Center, Gulfport, Mississippi and to Naval Construction Battalion Center, Port Hueneme, California in April 1994. Camp Fogarty (347 acres) was transferred to the Army in December 1993. Portions of West Davisville (70 acres) were leased to Rhode Island Port Authority in November 1993 and 21 buildings will be leased in January 1996.



BRAC CLEANUP TEAM - The BRAC Cleanup Team (BCT) was formed in December 1993 and meets regularly to discuss current and future cleanup initiatives. The BCT has helped resolve issues related to the Ecological Risk Assessment and several RI/FS reports. The BCT also renegotiated a new FFA schedule. The BCT has representatives from Naval Facilities Engineering Command's Northern Division (NORTHDIV), EPA Region I and the Rhode Island Department of Environmental Management (RIDEM).



DOCUMENTS - The BCP was completed in February 1994 and is updated annually. A Phase I Environmental Baseline Survey (EBS) has been completed and a Phase II EBS is underway.

Environmental Conditions of Property Classification

1	2	3	4	5	6	7
7 acres	63 acres	448 acres	0 acres	3 acres	31 acres	732 acres



LEASE/TRANSFER - There are 1,284 acres available for disposal. Currently, 80 acres are leased. There are 518 acres environmentally available for transfer, of which 374 have been transferred.



REUSE - Future uses will be mainly industrial with some recreational use of certain areas. The Reuse Plan was completed in January 1994. The plan was approved by the North Kingstown Town Council and the RIPA Board of Directors.



FAST TRACK INITIATIVES - Fast Track Initiatives have expedited cleanups. For example, removal actions at four sites were completed in advance of the Proposed Remedial Action Plan (PRAP) and the Record of Decision (ROD). Also, overlapping phases when sufficient information is available to safely begin the next phase has saved time. Final draft feasibility study preparation and review periods have been eliminated by expanding response to comments on drafts to include proposed revised text.

DAVISVILLE NCBC HISTORICAL PROGRESS

FY80

NCBC Davisville was issued a RCRA Generator Facility Permit that identified 13 Solid Waste Management Units (SWMUs) (nine landfills, two storage areas, one waste oil tank storage area and an injection well). Ten of the RCRA SWMUs are the same as 10 CERCLA sites: Sites 2, 3, 6, 7, 8, 9, 10, 11, 13 and 15. The remaining three SWMUs are not currently Defense Environmental Restoration Account (DERA) funded.

FY84

Sites 1-14 - An Initial Assessment Study (IAS), equivalent to a Preliminary Assessment (PA), identified fourteen potentially contaminated sites. The IAS recommended Sites 5, 7 and 9 for further investigation in a Confirmation Study (CS). Sites 12 and 14 were recommended for limited investigation. Sites 1-4, 6, 8, 10, 11 and 13 were found not to pose a threat to human health or the environment and were not recommended for further investigation. However, all sites except Site 1 were investigated further in the CS.

FY87

Sites 2-14 - The CS, equivalent to a Site Inspection (SI), was completed. No further action was recommended for Sites 4 and 5. Sites 2, 3, 6, 7, 9 and 10-14 were recommended for further investigation.

FY92

Sites 2, 3, 5-11 and 13 - A Phase I Remedial Investigation/Feasibility Study (RI/FS) that began in 1988 was completed. Concurrent with this Phase I RI/FS, a Federal Facility Agreement (FFA) was signed between the Department of the Navy, the State of Rhode Island and the EPA.

Sites 1, 4 and 15 - The FFA identified these three sites as Study Areas. Study Area 15 was used to store containerized waste petroleum products and solvents and was added by agreement of the parties concerned.

Sites 2, 3 and 5-14 - The FFA identified these twelve sites as Areas of Concern (AOC).

USTs 1-7 - Fifty-six tanks were removed. Sampling following tank removals indicated seven areas that required further investigation to determine if remediation is necessary. An Initial Site Characterization (ISC) was completed.

FY93

Sites 12 and 14 - The RI/FS was completed. Asphalt and concrete were removed as an Interim Remedial Action (IRA). A Record of Decision (ROD) for removal of the remaining contaminated concrete was prepared. This will be the Final Remedial Action (FRA) for these sites. The Phase I FS consisted of an Initial Screening of Alternatives. Based on the results of Phase I and a Risk Assessment Technical Memorandum, there was enough information to support a ROD.

Site 16 - A removal action was completed. The extent of the contamination was determined through sampling. The creosote-contaminated soil was removed and taken to a hazardous waste landfill. Additional sampling and analysis were done to confirm cleanup levels were achieved. This was the FRA at this site.

FY94

Site 12 - A revised Remedial Design (RD) was completed.

Site 5 - Phase II RI/FS was completed.

Site 8 - Recommended for no further action.

Sites 1 and 15 - A Site Investigation (SI) was completed.

PROGRESS DURING FISCAL YEAR 1995

FY95

All Sites - Completed basewide groundwater contour map.

USTs 1-7 - Prepared a CAP for seven of the 56 tanks that were removed in FY92. Investigations have been underway to prepare a CAP for seven of the 27 tanks that were removed in FY95.

Site 14 - Completed RA for removal of material contaminated with the chemical additive PCB.

Sites 5 and 8 - Signed ROD for No Further Action.

Sites 3, 7, 9 and Study Area 1 - Completed RIs.

Study Area 4 - Initiated the process for a non-time critical removal action.

PLANS FOR FISCAL YEARS 1996 AND 1997

FY96

All Sites - Will complete Phase II of the EBS to characterize all parcels. Work plans will be completed. Field work will be performed on 88 EBS Phase II review items. Complete all field investigations in FY96. Complete basewide groundwater study.

Site 9 (Allen Harbor Landfill) - The draft FS was submitted in January 1996. A ROD is planned for September 1996.

Site 2 - Removal of underground tanks and piping will be completed along with cleaning of the battery room.

Site 4 - Asphalt material will be removed.

Sites 2, 3, 6, 7, 10, 11 and 13 - FSs will be completed.

Sites 6, 9-11 and 13 - Prepare Proposed Remedial Action Plans (PRAPs) and RODs.

Sites 2, 12-13 and Study Area 4 - Complete the Remedial Actions (RAs).

FY97

Site 3 - The RI for off-site source characterization should be completed. Additional investigation at Site 3 will be required to characterize an off-site source in an area under cognizance of the Army Corps of Engineers as a Formerly Used Defense Site (FUDS).

Sites 6, 10, 11 and 13 - The NFA ROD should be completed.

Site 7 - The ROD for auxiliary groundwater should be completed.

Sites 7 and 9 - RA should be completed.

DAVISVILLE NCBC PROGRESS AND PLANS

CERCLA	FY94 and before	FY95	FY96	FY97	FY98	FY99	FY00	FY01 and after
PA	16							
SI	15							
RI/FS	2		1	12				
RD	1		1	13				
RA	1	1	1		10	3		
IRA	1(1)		3(3)	1(1)				
RC	1	1	1		8			5
Cumulative Response Complete	6%	12%	19%		69%			100%
UST	FY94 and before	FY95	FY96	FY97	FY98	FY99	FY00	FY01 and after
ISC	7	1						
INV								
CAP		7		1				
DES		2	2	1				
IMP			2	1	1	1		
IRA								
RC		3	2		1	2		
Cumulative Response Complete		38%	62%		75%	100%		